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AGRICULTURAL EXTENSION SERVICE

OF THE

NORTH CAROLINA STATE COLLEGE
OF AGRICULTURE AND ENGINEERING AND
U. S. DEPARTMENT OF AGRICULTURE, COOPERATING

I. O. SCHAUB, *Director*

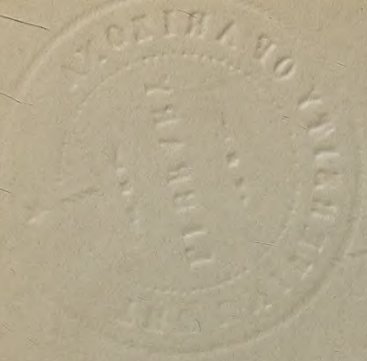
STATE COLLEGE STATION, RALEIGH

TENTH ANNUAL REPORT

Fiscal Year Ending June 30, 1924

Statistical Report Year Ending Dec. 1, 1924

DISTRIBUTED IN FURTHERANCE OF THE ACTS OF CONGRESS OF
MAY 8 and JUNE 30, 1914



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LETTER OF TRANSMITTAL

AGRICULTURAL EXTENSION SERVICE
NORTH CAROLINA STATE COLLEGE OF AGRICULTURE AND ENGINEERING
OFFICE OF THE DIRECTOR

STATE COLLEGE STATION,
RALEIGH, N. C., January 1, 1925.

DR. EUGENE CLYDE BROOKS, *President,*
North Carolina State College of Agriculture and Engineering.

SIR:—I have the honor to submit herewith report of the operations of the North Carolina Agricultural Extension Service, conducted by the North Carolina State College of Agriculture and Engineering, in coöperation with the Federal Department of Agriculture, for the fiscal year ended June 30, 1924, and crop year of 1924. I have the pleasure of reporting considerable progress made along all lines of field teaching during the past year. This report is made in accordance with the requirements of the act of Congress approved May 8, 1914, and known as the Smith-Lever Act.

Very respectfully,
I. O. SCHAUB,
Director.

Approved:
B. W. KILGORE,
Dean, School of Agriculture.

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BOARD OF TRUSTEES, NORTH CAROLINA STATE COLLEGE

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DR. E. C. BROOKS, *President of the College*

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R. H. EDWARDS	Goldsboro
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L. J. POISSON	Wilmington
J. L. BECTON	Wilmington
I. B. TUCKER	Whiteville
W. A. BULLOCK	Red Springs
R. W. ALLEN	Wadesboro
MARK SQUIRES	Lenoir
HARRY L. NETTLES	Biltmore, Rt. 1
W. D. LAROQUE	Kinston
S. F. PATTERSON	Roanoke Rapids
J. E. PORTER	Aurora
B. F. SHELTON	Speed
J. S. HARGETT	Trenton
GEORGE L. BECTON	Goldsboro
T. C. WHITAKER	Trenton
R. H. MERRITT	Raleigh
CLARENCE POE	Raleigh
J. C. GREGSON	Siler City
R. W. CHRISTIAN	Manchester
H. P. GRIER, JR.	Statesville
F. H. COFFEY	Lenoir
S. T. HENRY	Spruce Pine
J. W. HAYNES	Asheville
T. J. HARKINS	Asheville
W. W. NEAL	Marion

STAFF OF THE NORTH CAROLINA AGRICULTURAL EXTENSION SERVICE

ADMINISTRATION

B. W. KILGORE	Dean, School of Agriculture (Director Extension Until June 30th)
I. O. SCHAUB	Director of Extension (Effective July 1, 1924)
JAMES M. GRAY	Assistant Director and State Agent
MRS. JANE S. McKIMMON	Assistant Director and State Agent
A. F. BOWEN	Treasurer
H. C. EVANS	Auditor
MRS. L. B. JUDD	Secretary to Director
MISS DAISY THOMPSON	Clerk
MRS. CARL HILL	Bookkeeper

PUBLICATIONS

F. H. JETER	Editor
A. O. ALFORD	Assistant Editor
MRS. JEANIE S. WHITENER	Editorial Clerk

AGRONOMY

R. Y. WINTERS	Agronomist in Plant Breeding
S. W. HILL	Assistant in Plant Breeding
P. H. KIME	Assistant in Plant Breeding
G. M. GARREN	Assistant in Plant Breeding
W. F. PATE	Soil Agronomist
E. C. BLAIR	Extension Agronomist
H. A. McGEE	Tobacco Specialist

ANIMAL INDUSTRY

J. A. AREY	Dairy Extension Specialist
A. C. KIMREY	Assistant in Dairy Extension
W. L. CLEVENGER	Assistant in Dairy Extension
F. R. FARNHAM	Assistant in Dairy Extension
W. A. GRAHAM	Assistant in Dairy Extension
W. W. SHAY	Swine Extension Specialist
W. V. HAYS	Assistant in Swine Extension
G. P. WILLIAMS	Sheep Extension Specialist
A. G. OLIVER	Poultry Extension Specialist
E. G. WARDIN	Assistant in Poultry Extension
**H. L. WILSON	Assistant in Dairy Extension

ENTOMOLOGY

W. B. MABEE	Extension Entomologist
**C. L. SAMS	Beekeeping Extension

(**In Cooperation with U. S. Department of Agriculture.)

HORTICULTURE

R. F. PAYNE—Extension Horticulturist
H. R. NISWONGER—Extension Horticulturist
ROBERT SCHMIDT—Assistant Horticulturist
W. A. RADSPINNER—Assistant Horticulturist

MARKETS AND RURAL ORGANIZATION

V. W. LEWIS—Livestock Marketing Specialist
GORRELL SHUMAKER—Specialist, Marketing Fruits and Vegetables

PLANT DISEASES

G. W. FANT—Extension Plant Pathologist

FARM ENGINEERING

E. R. RANEY—Specialist in Farm Engineering

FARM FORESTRY

H. M. CURRAN—Farm Forester

FARM DEMONSTRATION

J. M. GRAY—State Agent, Farm Demonstration Work
C. R. HUDSON—State Agent, Negro Work
S. J. KIRBY—Assistant State Agent
J. W. GOODMAN—District Agent, Mountain District
E. S. MILLSAPS—District Agent, Piedmont District
O. F. McCRARY—District Agent, Central District
W. B. PACE—District Agent, Northeastern District
E. W. GAITHER—District Agent, Southeastern District

COUNTY AGENTS

County	*Agent*	*Address*
Alamance	W. KERR SCOTT	Haw River
Alexander	D. H. OSBORNE	Taylorsville
Anson	J. W. CAMERON	Polkton
Ashe	R. A. CROWELL	Jefferson
Avery	C. B. BAIRD	Newland
Beaufort	F. W. RISHER	Washington
Bertie	B. E. GRANT	Windsor
Bladen	J. R. POWELL	Clarkton
Brunswick	J. E. DOLSON	Supply
Buncombe	L. D. THRASH	Asheville
	C. W. TILSON, Assistant	
Burke	R. L. SLOAN	Morganton
Cabarrus	R. D. GOODMAN	Concord
Caldwell	D. W. ROBERTS	Lenoir
Carteret	HUGH OVERSTREET	Beaufort
Catawba	J. W. HENDRICKS	Newton
Cherokee	R. W. GRAY	Murphy
Chowan	N. K. ROWELL	Edenton
Clay	W. R. ANDERSON	Hayesville
Cleveland	R. E. LAWRENCE	Shelby
Columbus	J. T. LAZAR	Whiteville
Cumberland	N. B. STEVENS	Fayetteville
Craven	C. B. FARIS	New Bern
Davidson	C. A. SHEFFIELD	Lexington
Davie	GEO. EVANS	Mocksville
Duplin	L. L. McLENDON	Kenansville
Edgecombe	ZENO MOORE	Whitakers
Forsyth	R. W. POU	Winston-Salem
Franklin	COLE SAVAGE	Louisburg
Gaston	L. B. ALTMAN	Gastonia
Granville	J. H. BLACKWELL	Oxford
Granville	J. Y. CREWS	Oxford
Guilford	J. I. WAGONER	Greensboro
Halifax	C. E. LITTLEJOHN	Scotland Neck
	W. O. DAVIS, Assistant	Weldon
Harnett	H. A. EDGE	Lillington
Henderson	E. F. ARNOLD	Hendersonville
Hertford	C. A. ROSE	Winton
Hoke	L. B. BRANDON	Raeford
Iredell	R. W. GRAEBER	Statesville
Jones	E. F. FLETCHER	Trenton
Lee	E. O. McMAHON	Sanford
Lenoir	C. M. BRICKHOUSE	Kinston
Lincoln	J. G. MORRISON	Lincolnton
McDowell	W. L. SMARR	Marion
Macon	JOHN V. ARRENDALE	Franklin
Martin	T. B. BRANDON	Williamston

COUNTY AGENTS—Continued

County	*Agent*	*Address*
Mecklenburg	KOPE ELIAS	Charlotte
Montgomery	A. R. MORROW	Troy
Nash	H. M. PARKER	Nashville
New Hanover	J. P. HERRING	Wilmington
Northampton	E. P. GULLEDGE	Jackson
Onslow	J. D. BRANDON	Jacksonville
Pamlico	R. W. GALPHIN	Bayboro
Pasquotank	G. W. FALLS	Elizabeth City
Pender	W. H. ROBBINS	Burgaw
Pitt	R. B. REEVES	Greenville
Polk	J. R. SAMS	Columbus
Randolph	EWING S. MILLSAPS	Asheboro
Richmond	J. L. DOVE	Rockingham
Robeson	O. O. DUKES	Lumberton
Rowan	W. G. YEAGER	Salisbury
Rockingham	F. S. WALKER	Reidsville
Rutherford	F. E. PATTON	Rutherfordton
Scotland	S. E. EVANS	Laurinburg
Stanly	O. H. PHILLIPS	Albemarle
Transylvania	LEWIS A. AMMON	Brevard
Union	T. J. W. BROOME	Monroe
Vance	J. C. ANTHONY	Henderson
Wake	J. C. ANDERSON	Raleigh
Washington	R. W. JOHNSTON	Plymouth
Watauga	J. B. STEELE	Boone
Wayne	A. K. ROBERTSON	Goldsboro
Wilkes	A. G. HENDREN	Wilkesboro
Wilson	B. T. FERGUSON	Wilson

NEGRO AGENTS

L. E. HALL, District Agent—Arcade Building, Raleigh, N. C.
J. D. WRAY, Club Agent—A. & T. College, Greensboro

LOCAL AGENTS

Z. H. HYMAN, Warrenton—Warren County
W. D. BROWN, Winton—Hertford County
S. T. BROOKS, Lumberton—Robeson County
OLIVER CARTER, Parmele—Parts of Pitt, Edgecombe and Martin Counties
J. D. CARLTON, Salisbury—Rowan County
J. A. COLSON, Ansonville—Anson County
D. D. DUPREE, Farmville—Greene County
G. W. HERRING, Clinton—Sampson County
J. C. HUBBARD, Windsor—Bertie County
J. W. JEFFRIES, Mebane—Alamance County
R. J. JOHNSON, Warsaw—Duplin County
E. C. LACKEY, Winston-Salem—Parts of Forsyth, Davie and Yadkin Counties
J. W. MITCHELL, 613 S. Road St., Elizabeth City—Pasquotank County
L. H. ROBERTS, Raleigh—Wake County
I. D. L. TORRENCE, Charlotte—Mecklenburg County
H. E. WEBB, Greensboro—Guilford County
A. D. HERRING, Dunn—Harnett County
MCKAY MCNEILL, Smithfield—Johnston County

HOME DEMONSTRATION

MRS. JANE S. MCKIMMON—State Home Demonstration Agent, Raleigh
MISS MAUDE E. WALLACE—Asst. State Home Demonstration Agent, Raleigh
MISS PAULINE SMITH—Tidewater District Agent, Washington
MRS. ESTELLE T. SMITH—Eastern District Agent, Goldsboro
MRS. CORNELIA C. MORRIS—Central District Agent, Henderson
MISS MARTHA CREIGHTON—Piedmont District Agent, Charlotte

HOME DEMONSTRATION AGENTS

County	*Agent*	*Address*
Alamance	MISS EDNA REINHARDT	Graham
Anson	MRS. ROSALIND REDFEARN	Wadesboro
Beaufort	MISS VIOLET ALEXANDER	Washington
Bladen	MRS. LILLIE L. HESTER	Elizabethtown
Brunswick	MISS EDWIN PADGETT	Southport
Buncombe	MRS. SARAH P. ELLIS	Asheville
Cabarrus	MISS MATTIE LEE COOLEY	Concord
Catawba	MISS ANNA ROWE	Newton
Chowan	MISS ELIZA B. KNIGHT	Edenton
Cleveland	MRS. IRMA WALLACE	Shelby
Columbus	MISS EMELINE CLEVELAND	Whiteville

HOME DEMONSTRATION AGENTS—Continued

County	*Agent*	*Address*
Craven	Miss Cornelia Simpson	New Bern
Cumberland	Miss Elizabeth Gainey	Fayetteville
Davidson	Miss Elizabeth Cornelius	Lexington
Duplin	Miss Ruth V. Eborn	Kenansville
Durham	Mrs. Octavia Evans	Durham
Edgecombe	Miss Dorothy Dean	Tarboro
Forsyth	Miss Alice McQueen	Winston-Salem
Franklin	Miss Daisy Caldwell	Louisburg
Gaston	Miss Nell Pickens	Gastonia
Guilford	Miss Addie Houston	Greensboro
Halifax	Miss Bernice Allen	Roanoke Rapids
Harnett	Miss Elizabeth Bridge	Lillington
Henderson	Miss Rachel Everett	Hendersonville
Hertford	Miss Myrtle Swindell	Winton
Johnston	Miss Minnie L. Garrison	Smithfield
Lee	Miss Gertrude V. Little	Sanford
Mecklenburg	Miss Bertha Proffitt	Charlotte
Nash	Mrs. Effie V. Gordan	Nashville
New Hanover	Miss Florence Jeffress	Wilmington
Northampton	Miss Lucile Clark	Jackson
Pasquotank	Miss Marcie P. Albertson	Elizabeth City
Pender	Miss Georgia Piland	Burgaw
Perquimans	Miss Helen Gaither	Hertford
Polk	Miss Louis Holderbaum	Columbus
Richmond	Mrs. Anna Lea Harris	Rockingham
Robeson	Miss Flax Andrews	Lumberton
Rockingham	Miss Myrtie Keller	Reidsville
Rowan	Miss M. Adna Edwards	Salisbury
Rutherford	Mrs. Hattie Neill McBrayer	Rutherfordton
Sampson	Mrs. Stella R. Cusick	Garland
Stanly	Miss Marjorie Holmes	Albemarle
Transylvania	Miss Ada Walker	Brevard
Vance	Mrs. Hattie F. Plummer	Middleburg
Wake	Miss Myrtle Floyd	Raleigh
Washington	Miss Delano Wilson	Plymouth
Wayne	Miss Janie A. Roberts	Goldsboro

NEGRO HOME AGENTS

County	*Agent*	*Address*
Beaufort	Sarah Williams	Washington
Columbus	Carrie Spaulding	Clarkton
Richmond	Lucy Wade	Ellerbe
Wake	Dazelle Foster	Raleigh
Wayne	Emma McDougald	Goldsboro
Johnston	Cherrie B. Fulton	Smithfield

TENTH ANNUAL REPORT

OF THE

North Carolina Agricultural Extension Service

For the Year Ending June 30, 1924

Being the Eighteenth Year of Extension Work in the State

I. O. Schaub, *Director.*
F. H. Jeter, *Editor.*

This report covers the fiscal year July 1, 1923, to June 30, 1924, as regards finances, and the calendar year of 1924 as regards field activities.

The season of 1924 was an unusual one for North Carolina. As expressed by one farmer, it was the hottest and the coldest, the wettest and the driest year experienced in a long time. It was extremely wet during the planting season, and up to about the middle of July. Following this wet period, it was extremely dry over most of the State for about six weeks, and this, in turn, followed by another short period of wet weather. These extremes resulted in poor crops in many sections of the State. This was particularly true in the Coastal Plain region. The hot, dry weather of the latter part of July and August was of much benefit in the cotton territory in that it afforded good weather control of the boll weevil. Although much weevil damage was anticipated over the territory as a whole, it was only in a few localities that the damage was appreciably noticed.

ADMINISTRATION

The only important change in Extension organization during this fiscal year was the transfer of most of the marketing work from the Extension Service to the Division of Markets of the State Department of Agriculture. Under the new arrangement, the Division of Markets supervises shipping point inspection, the establishment of grades and standards, and such work as approaches personal service. The Extension Service works in close harmony with the Division of Markets, but confines its activities to the more strictly educational phases of this work.

As in previous years, the State Department of Agriculture and the State College both contributed financially to the support of the Extension Service, and the work is administered under the immediate direction of the Joint Committee for Agricultural Work, provided for in chapter 68 of the Public Laws of 1913.

It is the policy of the Agricultural Extension Service to cooperate as far as possible with the various other educational institutions, commercial organizations, business men and bankers who are interested in promoting the advancement of educational and agricultural conditions in North Carolina. Excellent working relations are had by the Extension Service with the Negro Agricultural and Technical College, the State Department of Education, and other educational institutions in the State.

Of all the agencies helping in the agricultural advancement of North Carolina, probably none is rendering greater service to the Extension Service than the press. The weekly papers continue to give of their space willingly for the dissemination of information about better farming methods, while the Associated Press has handled a large amount of news going to the daily press. A number of the larger dailies have made a regular practice of carrying some agricultural information on Monday morning, and at least three of them have regularly established farm pages.

The extension workers have also continued to receive the hearty support of banks, chambers of commerce, and civic organizations in helping to promote club work, community fairs, and other forms of extension activity. The development departments of the railroads and the Eastern Carolina Chamber of Commerce have also worked in close cooperation with the Extension Division.

CHANGES IN STAFF

There have been few changes in staff since the last report, and most of these occurred after the beginning of the new fiscal year on July 1. Director B. W. Kilgore having been appointed Dean of the School of Agriculture at the college made it necessary that a Director of Extension be secured to give his entire time to this work. After careful search and inquiry, I. O. Schaub, a graduate of the State College of Agriculture and with years of experience in administrative work for the United States Department of Agriculture, was selected to fill this position. He assumed the position as director on July 1.

J. M. Gray was made assistant director in charge of farm demonstration work, and Mrs. Jane S. McKimmon was made assistant director in charge of home demonstration work. Glenn O. Randall was appointed extension horticulturist to succeed R. F. Payne, resigned. S. W. Hill resigned as extension specialist in agronomy.

A number of changes were made in the county home and farm agent personnel, due to transfers in the best interests of the work and to the addition of new counties which made appropriations for either home or farm agents.

PRINTING AND DISTRIBUTION OF PUBLICATIONS

It is the purpose of the Division of Publications to reach the reading farm public of North Carolina. The division has worked largely with the weekly papers, supplying them with a news letter each week. A special service has been given to the daily papers through the Associated Press and with special articles which have appeared largely on Monday morning. Some feature articles have been prepared for use by these papers on Sunday. A number of specially prepared articles have also been supplied to the leading farm papers circulating in this section. The division has been active in securing photographs of extension workers in action, and these have been greatly in demand during the past year.

During the period from December 1, 1923, to November 30, 1924, the division has mailed out a total of 2,163,259 pieces of mail, bulletins, cards or

posters for the different offices of the Extension Service, the Experiment Station, and the State Department of Agriculture. Most of this circular matter was prepared and mimeographed or multigraphed by this division. A total of 670,000 letterheads were multigraphed.

During the fiscal year from July 1, 1923, to June 30, 1924, fourteen extension circulars were edited and printed with an issue of 133,500 copies. These are as follows:

Number and Title	*Number Copies*
122. (Reprint.) Farm and Home Garden Manual	5,000
137. Dust Poison Method for Control of Boll Weevil	15,000
138. Bordeaux Spray for Truck Crops	5,000
139. Ten Lessons in Food Preparation for Women	15,000
140. Five Lessons in Preparation of Foods for Club Girls	15,000
141. Fertilizer Needs for North Carolina Soils	6,000
142. Six Lessons in Poultry Keeping	10,000
143. A Swine Feeder's Guide	5,000
101. (Reprint.) Spray Calendar for Apples	5,000
133. (Reprint.) Feeding Hogs	5,000
144. Plum Curculio on Peaches and Its Control	5,000
145. Clothing Work	10,000
146. The Home Kitchen	5,000
Club Secretary's Record Book	1,500
Ninth Annual Extension Report	1,000
113. (Reprint.) Jelly, Preserves, Jams and Pickles	25,000
Total	133,500

In addition to these extension circulars, six extension folders with a total of 46,000 copies, were edited and printed by the division during the year. These are as follows:

Number and Title	*Number Copies*
13. Produce High-Grade Cream	4,000
8. (Reprint.) Tobacco Plant Beds	6,000
14. North Carolina Boll Weevil Program for 1924	10,000
11. (Reprint.) Gardening Essentials	10,000
3. (Reprint.) Milk for the Whole Family	15,000
4. (Reprint.) List of Publications	1,000
Total	46,000

Two poster bulletins, with a total issue of 22,500 copies, were prepared, printed and distributed by the division. They are:

Number and Title	*Number Copies*
25. Plant Pecans	10,000
26. The Cotton Boll Weevil	12,500
Total	22,500

In addition to these, the Ninth Annual Report of the Extension Service was edited and printed in an edition of 1,000 copies.

During the year, also, a total of 180,550 copies of Extension Farms News, the official organ of the Extension Division, have been printed and mailed. An effort was made during the year to make this publication more attractive and there has been a great demand on the part of citizens to be added to this mailing list.

Workers of the division have helped in the various campaigns put on by the extension workers and have assisted in giving publicity to the efforts of these extension specialists.

FARM DEMONSTRATION DIVISION

Assistant Director.—Seventy-seven of the one hundred counties in North Carolina now have county agents at work. Three counties have assistant agents. In the mountain district, R. A. Crowell was appointed agent in Ashe County. In Buncombe County, C. W. Tilson was appointed to fill the position as assistant county agent, to succeed L. R. Harrill, resigned. In Henderson County, E. F. Arnold was appointed county agent.

In the piedmont district, D. H. Osborne was transferred from Yadkin to Alexander County to succeed U. A. Miller, resigned. C. A. Sheffield was appointed county agent in Davidson County. J. I. Wagoner was appointed county agent of Guilford County, to succeed E. B. Garrett, resigned.

In the central district, Cole Savage was appointed county agent in Franklin County. In Moore County M. W. Wall resigned. In Union County T. J. W. Broom was appointed to be county agent.

In the northeastern district, F. W. Risher was appointed to be county agent in Beaufort County. B. E. Grant was appointed county agent in Bertie County. C. A. Rose was appointed agent in Hertford County. T. B. Brandon was transferred from Greene to Martin County. E. P. Gulledge was appointed county agent in Northampton County, and L. W. Anderson resigned from the work in Perquimans County.

In the southeastern district, J. R. Powell was appointed county agent in Bladen County at the death of R. K. Craven. Colin McLaurin resigned from the work in Cumberland County.

One of the features of work in the Farm Demonstration Division this year has been the excellent arrangement of county plans of work carried out in 63 counties with 772 communities.

During the year work with boll weevil control measures was continued and enlarged; there was more cooperation with commercial concerns and individuals and a splendid campaign was made during the spring of 1924 for the planting of feed and feed crops. The campaign was also continued for the planting of standard varieties of cotton; for better fertilization and more rapid cultivation of the cotton and for dusting with calcium arsenate where boll weevil infestation occurred.

The county agents also devoted more attention to the problem of special money crops for territory outside of the cotton area. Good results were secured in the mountains with cabbage and sauerkraut industry, so that this is now on a self-sustaining basis. Certified seed Irish potato work was continued, so that production was doubled. Dairying was also espe-

cially promoted in three counties and a cream station was established in Macon County to help in this problem of new money crops.

The farm demonstration division gave assistance to a total of 167 fairs this year. The agents also, through the office of the assistant director, distributed 960,400 pounds of sodatol and pyrotol to 2,008 farmers in twenty counties at a saving of $10,000.

Mountain District.—On January 1, 1924, thirteen counties of the mountain district were cooperating with the college in employing county agents. On July 1, 1924, Ashe was added to this list, giving fourteen counties now operating. There are now fifteen agents in the field, since Buncombe County employs an assistant agent, paying all his salary and expenses.

In the mountain district some farmers have been slow to recognize the value of extension work. This attitude is being overcome as a result of the

Mountain farmers of Western Carolina are learning to grow certified seed Irish potatoes through demonstrations conducted in the organized counties.

definite demonstrations being conducted by the agents and specialists. However, there has been no definite system of agriculture in this territory, and even now the people are in a transitional period from almost total dependence upon such natural resources as lumber, roots and minerals to that of agriculture. It takes time and patience to help under conditions like this. The people have been under a tremendous financial strain because, with the exception of a few counties, most of the taxes are paid by farmers.

In this territory the agents have spent most of their time in trying to find new money crops, and it is felt that with the dairy cow, hog, hen, orchard, beef cattle, sheep and trucking, that the farmers may be able to become more independent. The agents in this section are using definite demonstrations, securing a leader in a community to carry on the work. Extension work as a whole in this territory is in good standing and stronger support may be expected in the future.

Piedmont District.—Farm demonstration work has been conducted for sixteen years in this section of North Carolina. During the past year, agents were employed in 17 counties, and in two other counties during most of the year. The finances of the district in so far as farm demonstration work is concerned have never been in a more satisfactory condition. In most counties the salaries are being paid on a fifty-fifty basis. On July 1, the counties of this district were paying $28,750 and were receiving from extension funds $23,050, showing an increase in county funds for six months of $2,509.

Soil improvement work continues to be one of the important problems of the county agents, and demonstrations have been put on showing the value of better plowing, terracing, rotation of crops and growing of legumes. The use of better seeds has also been urged and much improvement has been

Cooperative car-lot shipments of poultry were begun as a successful project last year. This view shows farmers loading poultry at Rutherfordton.

noted in the use of these improved seeds. A number of variety demonstrations have been made to show the value of good seeds.

There has been excellent growth in the use of pure-bred livestock during the year, and it is noted now that there is a gradual increase in the number of pure-bred herds of cattle and hogs, flocks of pure-bred chickens, and the elimination of scrub sires. The most universal improvement has been made with hogs. The farmers are also patronizing liberally the creameries in their sections. Rowan County is outstanding in the breeding of Guernseys, with Forsyth, Davidson and Rockingham following close behind. Catawba, Cleveland, Mecklenburg, Iredell and Caldwell counties are devoting much attention to pure-bred Jerseys, and near some of the larger towns there are fine herds of Holstein cattle.

Catawba, Cleveland and Stanly counties are especially noted for the excellent work being done with poultry. In Catawba County the boys' and girls'

poultry clubs made over $10,000 on their poultry flocks this year, and they won $3,300 in premiums at fairs.

Club work has been a disappointment in several counties due to the great demand made on the time of the county agents by the adult farmers.

Work with horticultural crops, however, increased during the past year. The results of demonstrations made were seen in better quality of fruit and in the better condition of the orchards at the close of the season. Several of the agents did demonstration work in orchard improvement and gave much help in the large commercial projects in Alexander and Wilkes counties. There has also been much organization work looking to the handling of farm produce.

Central District.—In the central district agents were employed in 13 counties. The increased appropriations given by the counties amounted to $1,680 as compared to 1923. The State paid $3,863 less for county agent work in the central district in the past year than it did in 1923.

Weather conditions throughout the central district were extremely unfavorable during the year. A feature of the work was the number of soil improvement demonstrations which were conducted. County Agent W. H. Barton of Richmond County led the district by inducing his farmers to buy more than ten tons of vetch seed. County Agents Morrow and Broom were next with 14,500 and 10,000 pounds, respectively. The total amount of seed so bought amounted to 56,000 pounds.

Many demonstrations with soybeans were placed with interested farmers. So popular was the work with soybeans that 11,545 bushels were bought as a result of county agent work.

Lespedeza has also become an important crop for soil building in this district and agents ordered 1,436 bushels of seed during the year. Other important soil building demonstrations were: Sowing of winter cover crops, greater interest in terracing, some attention to drainage and the use of more ground limestone. One agent states that his farmers are now using 500 cars where they used one carload four years ago. A large percentage of the limestone was used under tobacco for the control of sand-drown.

With farm crops, interest was taken in improved seeds, especially of oats, corn, abruzzi rye, and with cotton. The coming of the boll weevil helped along with the campaign for improved cotton seed. A number of permanent pastures were sown during the year, and demonstrations were made with others of the various grasses and forage crops.

In horticulture, the agents did work in controlling watermelon diseases, helped to prune, spray and fertilize the peach orchards, to control dewberry anthracnose, and to plant increased acreages to pecans.

With livestock, four county agents carried on demonstrations in hog feeding. The agents held butter-making demonstrations, promoted the eradication of bovine tuberculosis, and helped in the establishment of creameries. Some work was also done in bringing pure-bred Jerseys into different counties.

With entomology, beekeeping received attention in Harnett and Montgomery counties, and all the agents gave valuable assistance in fighting the boll weevil.

In marketing, there were cooperative shipments of hogs out of Anson County, the establishment of curb markets at Sanford and Burlington, the organization of a dewberry marketing association for the Sandhills, and the securing of a marketing agent who, as assistant county agent in Granville County, works with the farmers to dispose of their surplus products.

Club encampments were held in three counties and club tours were made by three agents.

Northeastern District.—The problem before the county agents in the northeastern district has been to organize their work. There are nineteen counties in this district and 12 are cooperating in extension work. Halifax County has two agents, making a total of 13 for the district. Thirteen counties are contributing $20,350 to the work.

In seven counties there are boards of agriculture which meet with the agent once each month for the discussion of such problems as may arise, and it is the aim in this district to have a strong central supporting organization in every county. The agents have devoted their time largely to field demonstrations, and last year there were 1,258 of these completed in the district. It was intended to conduct a number of boll weevil control demonstrations, but on account of insufficient infestation very few real demonstrations were carried through. In one county two demonstrations showed that a saving of $42 per acre could be made when cotton was dusted over where it was undusted.

Three carloads of poultry were shipped in the summer with four hundred farmers cooperating and saving nearly $1,000 by so doing. Many cars of soybeans were also shipped cooperatively, with the farmer receiving from 25 to 60 cents per bushel for his beans by cooperating in this manner. The agents have worked with the home agents to conduct many successful curb markets. The agents have given much intelligent effort to promote publicity and a number of them have established agricultural news departments in their county papers.

Southeastern District.—There are nineteen counties in the southeastern district, and 18 are cooperating in extension work. One of the big things accomplished in the district during the past year was the organization of the Cape Fear Cooperative Association, comprised of farmers and business men in the territory adjacent to Wilmington. This organization first took up the establishment of a central pasteurizing and distributing plant for Wilmington, and the work has gone forward successfully. This organization has promoted a better spirit among the business men and farmers of Wilmington more than any other one thing done lately in this section. The past year, however, was a trying one for the Eastern Carolina farmer. Weather conditions were bad and resulted in one of the worst crops of some years.

In specific problems, soil fertility comes first and livestock development second. Farmers have grown cotton and tobacco for so long that they look upon livestock as a luxury similar to an automobile. However, demonstrations are proving that by better handling, livestock farming may be made profitable in this district.

Ninety per cent of a number of counties are either in second-growth timber or in cut-over land which will not be needed for agricultural purposes for the next hundred years. This vast forest area is being rapidly destroyed by fire and axe, and has ceased to pay revenue to the owners. The county agents are taking an interest in preventing forest fires and in promoting reforestation.

Little damage was done last year by the boll weevil on account of weather conditions. In trucking, many growers were forced into bankruptcy and many of them awoke to the necessity of having a better distributing system in marketing their produce.

The agents assisted in marketing and buying wherever possible, and were especially successful in assisting their farmers to secure seeds, fertilizers, feed, explosives, and such things by cooperative effort. It still seems, however, that farm management is one of the big problems of the southeastern district, and next to this comes farm forestry. These matters both received attention during the past year.

The State.—The county agents of the Farm Demonstration Division carried on an extension program in 772 communities of North Carolina during the past year. In these communities there were 183 local leaders who were doing work with boys and girls, and 742 leaders who were doing work with adults. There were 196 clubs carrying on extension work among young folks, and 158 clubs for adults. Membership in these clubs was 1,946 boys and 999 girls. Among the adults there were 5,804 men and 738 women. The results show that 1,095 boys, 543 girls, 1,514 men, and 201 women completed their work.

The agents were responsible for 124 young people entering college for the first time. During the year they made 49,117 trips to farms in carrying on extension work; they visited 20.249 different farms and called at 1,589 homes. Not all of the work was done out in the field, however, as 98,462 calls were made to the office of the agents for advice, and 40,900 calls were made over the telephone. The agents wrote 88,320 personal letters; they made exhibits at 122 community fairs and 67 county fairs; they held 459 training meetings where there were 4,263 leaders in attendance, and held 4,025 method demonstration meetings at which 134,103 farmers were in attendance.

Though farmers' institutes have largely gone out of style in North Carolina, 29 such meetings were held last year with an attendance of 6,481. The agents also held 21 short courses or extension schools where 4,198 people were present. Thirty-three club encampments were held, with a total attendance of 3,090. There were other extension meetings to the number of 2,145, at which 157,030 people were in attendance. The educational value of these meetings can be seen by the fact that at 885 of them the agents used lantern slides, at 1,200 they used motion pictures, and at 7,089 meetings they used illustrated charts.

As a result of their work last year, the agents show that, with soils, improved practices were adopted on 17,842 farms. With farm crops, improved practices were adopted on 24,988 farms. In horticulture, including home gardens and beautification of home grounds, improved practices were

adopted on 6,935 farms. With forestry, improved practices were used on 277 farms; with rodent control, on 873 farms; in animal husbandry, on 4,679 farms; with dairy husbandry, on 6,337 farms; with poultry, on 4,518 farms; with rural engineering, on 6,802 farms, and in home marketing on 5,944 farms. Community activity was engaged in by 4,058 communities, and improved practices in various other lines of work was noted on 10,282 farms.

The work with soils showed that 2,274 demonstrations were started and 1,642 were completed. This involved 22,519 acres of land. A large number of farms adopted improved practices in the use of commercial fertilizer; nearly 2,000 used limestone for the first time, buying nearly 14,000 tons; and about 2,000 farms plowed under green manure for the first time, improving 12,666 acres.

With cereals, 5,196 farms adopted better practices with corn; 1,171 with wheat; 4,092 with oats; 742 with rye, and 294 with barley. In many cases this involved the planting of improved seed, the selection of seeds, the treating of seed grain and better methods of growing the crop.

With legumes and forage crops, the county agents secured improved practices with alfalfa on 340 farms; with soybeans on 3,617 farms; with sweet clover on 142 farms, with crimson clover on 1,531 farms; with red, alsike and white clover on 1,678 farms, and with cowpeas on 207 farms. The best results possible were secured with lespedeza, where the reports show that improved practices were adopted on 3,803 farms. Most of these were in the growing of lespedeza for the first time. Pastures were established on 2,971 farms.

With special crops like potatoes, cotton or tobacco, the agents brought about improved practices with Irish potatoes on 1,083 farms; with sweet potatoes on 345; with cotton on 7,878 farms; and with tobacco on 1,328 farms. This work included the use of improved seed, the practice of selecting seed for the first time, and in the case of tobacco and Irish potatoes, the treating of seed for diseases. A large number of farmers dusted and sprayed for the first time for the control of diseases and insects.

In horticulture, best results were secured in planting orchards, and improved practices relative to tree fruits were secured on 2,423 farms. Some good results were also obtained with grapes and small fruits, but it was with home gardens that best results were secured where 3,842 farms adopted improved methods of gardening. Some 377 farms did work in the beautification of home grounds.

In forestry, 146 farms adopted improved methods as a result of demonstrations put on by the agents. In the control of rodents and animal pests, there were 1,410 farms cooperating with the agents and nearly 12,000 acres involved in the work.

With livestock, work was conducted with dairy cattle, beef cattle, swine, sheep and poultry. This work included actual demonstrations, the organization of livestock clubs, the bringing in of pure-bred sires, the purchase of pure-bred females, the culling of herds and flocks and the organization of breeding associations. Some work was also done in improving the sanitary conditions around dairies and in the feeding of better balanced rations from feed produced at home. The records show that the agents reached

7,364 farms in this work with dairy cattle, 330 farms in work with beef cattle, 2,229 farms in work with swine, 239 farms in work with sheep, and 5,023 farms with poultry.

Much work was done in rural engineering, especially in the establishing of terraces and drainage systems and remodeling and building new farm buildings and in clearing land of stumps. The records show that nearly 30,000 acres of land were cleared of stumps during the year and that over 6,000 farms were reached in all phases of engineering problems.

In agricultural economics, work was done in helping farmers to use better methods of farm management, in organizing and obtaining credit, and

Progress was made in Extension work with sheep raising. This shows a group of farmers in Halifax County studying sheep production under direction of the County Agent.

in making demonstrations in marketing. In marketing work, especially, the agents organized 61 associations which had 2,478 members and purchased supplies to the value of $101,677.48. They sold products to the value of $138,397.80. In the purchase of their supplies, these small associations saved over $41,000, and they made a profit on products sold of over $20,000. Considerable work was done with cooperative marketing associations already formed. There were 82 such associations, with a membership of 22,214.

Negro Local Agents.—During the year 1924 only one change was made in Negro extension work. This involved the appointment of McKay McNeill to succeed Local Agent L. E. Sanders in Johnston County. This work is now done under the direction of a State agent assisted by a district agent and a State club agent. The State and district agents have supervision of the work of the local agents, while the club agent is in charge of the work outside of the local agents' territory.

There were a total of 18 agents at work during the past year. These agents held 6,124 field crop or livestock demonstrations, in connection with which 441 meetings were held. All of these meetings were well attended. These agents also held 1,047 method demonstrations and other meetings, to the number of 632. This shows that the negro local agents held 2,120 meetings during the year. The local agents wrote 9,152 letters, made 9,094 visits to 3,916 farms and 3,255 homes. They held 33 community fairs and 12 county fairs. They organized and held five club encampments, at which were 333 boys and girls and 1,193 visitors.

It is estimated that 80 per cent of the plans outlined by the agents were carried to execution by the farmers cooperating. The agents have promoted a number of county-wide projects, especially in soil improvement work. This has shown up remarkably well in the buying of lime and fertilizers.

One of the new things begun by the local agents was in securing negro farmers to keep some account of their farm work. Last year over 300 farmers took part in this under the guidance of the local agents. Thirty-three credit organizations were formed, with a membership of 428 Negroes, and, altogether, 1,153 farmers adopted improved practices relative to farm management. The agents organized six marketing associations, with a membership of 98. These associations purchased supplies to the amount of $6,530, with a saving of $1,047. They sold products to the amount of $16,969 at a profit of $5,492.

HOME DEMONSTRATION DIVISION

In 1924, organized work was conducted in 52 counties for white women and girls and in six for Negroes. This is two counties less than for 1923, due to the resignation of the agent in Wilkes County and the agent in Iredell County.

For purposes of supervision, North Carolina is divided into four districts in home demonstration work as follows: The Piedmont and Mountain, the Central, the East Central, and the Tidewater.

Piedmont and Mountain.—The Piedmont and Mountain districts are combined into one, for the present, under the supervision of one agent. This district contains 38 counties, fourteen of which are organized, and it is here that the greatest efforts in organization of new counties must be conducted in the future. The district lost Iredell and Wilkes counties through the resignation of agents in 1923 but gained Henderson County, which appropriated on July 1.

Other changes include the resignation of Miss M. S. Jones, of Jackson County, who resigned to be married. Miss Cathleen Wilson, of Cabarrus County, also resigned to be married and was succeeded by Miss Lillian Cole. Miss Lucile Clarke resigned from Transylvania County on account of ill health and was succeeded by Miss Ada Walker. Miss Anna Rowe, former agent in Durham County, was transferred to Catawba to take the place of Mrs. Anna Lea Harris, who was transferred to Richmond County.

Central District.—The Central District is composed of 22 counties, 15 of which are organized. Two of these, Richmond and Wake, appropriate also for negro home demonstration work. Miss Rose Elwood Bryan was

appointed agent in Moore County to succeed Miss Nora Bradford, who resigned. Miss Anna Rowe, of Durham, was transferred to Catawba. Miss Gertrude Alexander succeeded Miss Rowe in Durham County, but resigned to be married, and Mrs. Octavia Evans was appointed to this position during the year. Lucy Wade, negro assistant home demonstration agent, was transferred from Johnston County to Richmond County. Anson County discontinued its work for negro women and girls during the year.

East Central District.—The East Central District comprises 16 counties, 13 of which are now organized in home demonstration work, with negro assistant agents in Wayne and Columbus counties. Though crop conditions were bad in this territory during 1924, no appropriations were lost and requests were received from Wilson and Lenoir to start the work.

Miss Stella Rymer, in Bladen County, resigned to be married and was succeeded by Miss Emiline Cleveland. Mrs. Mary Lamb, agent in Sampson County, resigned and was succeeded by Miss Myrtle Floyd. Mrs. J. B. Cavenaugh, of Brunswick County, resigned and was succeeded by Miss Edwin Padgett.

Tidewater District.—In the Tidewater District there are 24 counties, ten of which appropriate for white home agents, and one (Beaufort) for a negro assistant agent. The taxable wealth in the Tidewater District is small in comparison with the Central and Piedmont sections, and hence the number of organized counties is smaller. The appropriation in Bertie County was discontinued after the agent resigned to accept a teacher's position, and in Onslow County when the agent resigned on account of ill health.

During the year, Miss Alice Carter, of Craven County, resigned to go into teaching work, being succeeded by Miss Hattie May Morisey, formerly agent in Onslow. Nash County was transferred from the Tidewater District to the East Central District and Franklin County was transferred to the Tidewater group from the Central District.

The State.—In 1924, the total county appropriations for 52 counties showed an increase of $7,810 for home demonstration work. This amount included an appropriation by one new county for $1,200, and the remaining $6,650 was either to increase salaries or to reduce the State appropriation. In addition to appropriating this money, the county boards in 46 counties furnished home agents with cars. Thirteen counties have given special appropriations for demonstration materials and fifteen are supplying stenographers or clerks jointly for the home and farm agents.

The records show that 538 clubs were organized for women, with a total membership of 11,503. There were 563 girls' clubs, with a membership of 13,050. If the enrollment of the negro club members is included, there were a total of 29,146 women and girls organized in home demonstration work in North Carolina last year. There were also 112 community clubs organized, with a membership of 9,272.

With Negroes, home demonstration work was organized in six counties, with 48 women's clubs, with an enrollment of 2,495, and 43 girls' clubs with an enrollment of 2,098.

The home demonstration division makes it a policy to secure specialists to give demonstrations each year to the 52 home agents on subjects most pressing at the time. Last year, in the annual school for home agents, special training was given in interior decoration, landscape gardening, and poultry work. The agents, in turn, carried this work to the club leaders in the counties.

Heretofore, the Assistant State Agent has occupied the position of clothing specialist, the Central District Agent is the food specialist, and the Piedmont and Mountain District agent is specialist in household furnishings.

Home and Farm agents have established successful curb markets in 28 counties. This shows a view of the one in Rockingham County.

During the past year the division continued its four-year plan of work with club members. Much time was given to training women and girl leaders to assist the home agent, to organizing county councils of rural women and girls in every county and in raising the proficiency of every home agent in the State.

During the year 1924, 13,477 visits were made by the agents in the conduct of their work, and 11,501 instruction meetings were held with an attendance of 252,163 women and girls. The agents in thirty counties trained local leaders to assist in carrying out programs of work. In 40 counties county councils of farm women and in seven counties junior councils of club girls were organized. At the fourth annual short course for club girls, held at the college last year, there were 236 young ladies in attendance, representing club work in 34 counties. These girls were selected as outstanding leaders in their clubs and came to the short course to get advanced work. An interesting program was arranged, including work in clothing, bread-making, food preservations and poultry diseases.

As a result of home demonstration training, 422 girls entered college last year. The agents held 180 training meetings for local leaders, where there were 2,391 women and girls in attendance. With club demonstration teams, 36 home agents trained 151 girls to give demonstrations and brought these together in competition. In the elimination contests held in five districts, 25 winning teams were finally selected to attend the State Fair, where they were the center of interest in the home demonstration building.

The county councils of farm women usually meet once a month, with well-arranged programs for discussion. To show how the women in these

A Home Agent demonstrating the use of the pressure canner before a home demonstration club.

councils may assist the agent, last year in Robeson County 68 women leaders presented the value of milk to 20,000 children in 109 schoolhouses. These councils also elect delegates to the State Federation of Home Demonstration Clubs, which is affiliated with the State Federation of Women's Clubs.

In addition to the school for agents and the short course for club girls, the division also held one short course for negro agents lasting for five days, with five of the agents attending. In unorganized counties, the district agents attend such meetings and activities as it is possible for them to take part in.

The results of home demonstration work show that last year there were 13,094 women and girls in 46 counties that completed work in food prepa-

ration. The total number of homes adopting improved practices in this work was 12,031. In food preservation, 10,004 women completed work in 45 counties and 8,734 homes adopted improved practices in this branch of the work. This was largely the conservation of fruits, vegetables and meats, and the records show that 993,185 quarts were put up for market and home use.

In nutrition work, 7,712 farm women completed their work, and 6,520 homes adopted better practices in feeding the family. In this work, the importance of dairy products, eggs, fruits and green vegetables was stressed and the women were encouraged to plant gardens and fruit trees and to have some poultry and a cow on every farm. The rural women are rapidly learning how to balance meals and to feed the proper food proportions to the family. As a part of their work in nutrition, the agents weighed and measured 2,098 school children last year. County-wide instruction in the value and use of milk was given in three counties last year, and in 11 counties the hot school lunch was encouraged in 45 schools which served 6,133 children.

Clothing work was conducted in 48 counties last year, and 11,482 women and girls completed the work as outlined. The total number of homes influenced to adopt improved practices in clothing work were 9,839. This work in clothing has been well distributed over the entire State, and its effects are seen in the buying of cloth by the women and girls. They gain a better knowledge of textiles and materials and find out how they may get the best value for the dollar expended. These members also find that it is not always good economy to buy the cheapest material.

Clothing work has shown remarkable development in the last few years as shown by the fact that when the 235 girls came to the short course at State College last summer, there was much favorable comment on their well-dressed appearance.

In household management, 2,574 women and girls completed work in 39 counties and the number of homes adopting better practices amounted to 2,992. The results of this work is reflected in the brighter and more convenient kitchens and in the establishment of more home conveniences. The campaigns for better kitchens have been especially popular, and some of the most interesting results secured by the home agents have been with this feature of the work.

In household furnishings, 2,535 women and girls in 39 counties completed work last year. The total number of homes adopting such improved practices amounted to 2,980. This activity is a direct result of the course in interior decoration given to the agents at the annual conference. In most of the counties interior decoration has been taken up in the women's home demonstration clubs, and in a number of instances the meeting room has been used for demonstration purposes. As the course progresses, the club members apply the lessons to furnishing and remodeling their own homes. A number of "Better Homes Weeks" have been observed by the agents and excellent results have been secured in at least six counties, where the homes were open to inspection, and one agent reported that over one hundred visitors came in a single day to see a home that had been renovated in this way.

Work in home health and sanitation has been done in 19 counties, with 8,454 individuals adopting the health practices. This activity has been carried on with women, girls and boys, and was stressed in 40 counties either as a definite project or correlated with the work with food, clothing and recreation. A number of agents have cooperated with the health department and have endeavored to establish good health rules and to impress these rules in the minds of the club members.

In household engineering, the home agents in 18 counties have been responsible for 347 homes adopting improved practices. This work has included the installing of running water and electric lights and in renovating the house. Some new farm buildings, such as poultry houses, have also been constructed according to specifications furnished by the farm engineer.

With the beautification of home grounds, 2,657 club members in 34 counties report having done work in this project. The total number of homes involved was 2,330, of which 388 belonged to negroes. Planting plans have been provided for both homes and schools, and much of the work was done in all-day planting "bees," at which time men, women and children gathered together under the direction of the agents and laid out driveways and walks and set out plants. This project was started as a community plan in 19 communities by the agents last year.

Encouraging the planting of gardens has been a leading activity of the home agents this year, and the records show that 2,959 white women, 135 white girls, 642 negro women, 246 negro girls, and 14 negro boys have completed their garden work in 22 counties. The total number completing this work amounted to 3,996, with 3,637 homes represented. The ready sale of spring and winter garden products and a better knowledge of the nutritive value of vegetables have been great stimuli in the planting of gardens. Many farm women have realized an excellent profit from their surplus vegetables by selling them on the curb markets, and this institution has added to the popularity of the work.

With poultry, work has been carried on actively in 32 counties, with 3,323 women, girls and boys enrolled. Over 1,100 demonstrations have been carried through, involving nearly 82,000 birds. Poultry flocks were culled for the first time on 1,252 farms, involving about 60,000 birds. The agents were responsible for about 36,000 birds being discarded from farm flocks last year. A large number of home owners were induced to feed better balanced rations to the poultry, and were induced to obtain standard bred breeding fowls to build up the flocks. The records show that 2,964 homes were assisted in increasing the family income through the growing of poultry, and that 3,734 different homes adopted improved practices in handling farm poultry.

In home dairying, 621 homes were influenced to adopt better practices, with 55 of these representing negro families. This home dairy work is closely linked up with nutrition and food preparation, and most of the activities of this project have been reported under either of these two heads. However, the agents have cooperated in holding a number of schools and have given demonstrations in making butter and in better methods of handling the milk supply.

The home agents have devoted considerable attention to the marketing of home-grown products. This is no longer an experiment with farm women in North Carolina. Last year 28 counties reported having curb markets, with 13,942 homes standardizing and grading products sold on these markets. The value of the products sold by these women under the direction of the home agents amounted to $154,749. In this work, the agents have assisted the women in disposing of surplus supplies from the pantry, the poultry yard and the garden. Some women have built up quite a business in selling by parcel post, while others have shipped in barrel

A partial view of the curb market at Wadesboro. This is one of the most successful in the State.

lots to the large institutions of the State. The greatest disposal of surpluses, however, has been on the 28 curb markets from which some women have been able to secure enough funds to put the family on a cash basis throughout the year.

With fairs, the home agents have assisted at 89 community fairs for white people; 28 community fairs for Negroes; 43 county fairs for white people; 7 county fairs for Negroes, and one State fair each for white people and Negroes. Where the home agents are called upon to help organize these fairs, they see that committees are formed in each community to take care of each department. The agents also act as judges and exchange services between the different nearby counties.

The community fair is increasing in popularity and is proving to be a valuable teaching agency in this State. Last year 43 home agents sent exhibits to the State Fair and the exhibits made by the division proved to be one of the popular features.

In encampments, the home agents held 25 for the boys and girls and four for women. The encampment for club women was a new feature that will be encouraged because of the success attending the four held last year. It is felt that the club encampments have done more for the young people in a county than anything that has been done by the agents. The boys and girls attending these encampments receive a certain amount of instruction and enjoy a whole lot of play. Such training does much to mould character, develop initiative and train for leadership. A definite schedule of work and play is carried out at each encampment.

In addition to these set activities, the home agents have also devoted much time and energy to attending picnics and other rural activities about over the counties. They have succeeded in reaching the great mass of farm women of North Carolina, and the results are being shown in better homes wherever their influence has reached.

Since there are only six home demonstration agents at work with negro women, practically all of the statistics given for this work are included in the report given for the white agents.

BOYS' AGRICULTURAL CLUBS

Sixty of the 78 county and assistant county agents report club activities as a part of their program of work during the year. This work with the young people is a definite part of the county agent's duties. The boys and girls of a community are organized in the same club and the work generally is conducted jointly by the home and farm agents, the agricultural work being handled by the farm agents and the home economics work handled by the home agents. No club work is attempted in counties which do not have agents employed.

Records show that there were a total of 792 club members enrolled in crop work such as corn, small grain, cotton, Irish potatoes, and other crops, and that 448 of these members completed the work. In livestock clubs, including activities with dairy and beef cattle, swine, sheep and poultry, there were 2,012 club members enrolled, with 1,077 completing their work and making a report. This is a grand total in organized agricultural club work of 2,804 members, with 1,525 completing. Poultry continued to lead in numbers and in popularity.

In crop clubs, probably best results were secured in cotton. This work was stimulated by an offer of $750 in cash from the Eastern Carolina Chamber of Commerce. Nearly all of the boys made good average yields, and one boy, Robert Johnson, of Four Oaks, produced over 1,000 pounds of lint cotton on an acre. Claud Sigmon, of Newton, produced more than 1,100 pounds of lint cotton on one acre. This yield is the highest except one so far reported by a cotton club member in the entire South.

With Irish potatoes, the club boys and girls reported an average yield of 163.3 bushels per acre.

In the livestock clubs, work with dairy calves is growing in popularity and importance. Business men and breeders have given encouragement to this work and are helping to finance it. The work began in Catawba County in 1921 and has since spread to other counties. The beef cattle club work was especially popular in the mountain section of the State, particularly in Buncombe County. In poultry club work, the members of the boys' and girls' organized clubs in a single county won a total net profit of more than $1,200 in premiums for birds exhibited from their flocks. Five poultry club members won premiums at the Madison Square Garden poultry show last year.

Club boys prove their training at the North Carolina State Fair.

Club members are enrolled usually between December 1 and March 1. Where as many as ten members in the same community apply for membership, they are called together by the agent for a meeting and regular officers elected. Generally one adult leader is appointed for each group. The agents find that in addition to attending the regular meetings of the organized clubs, they must also make personal visits to the club members.

Club encampments and tours are becoming increasingly popular among the club members. During the year, 3,090 club members from 33 counties attended such encampments. These were held jointly for boys and girls, with a program planned in advance, with some joint work for both groups. As a rule, the encampments last for four days and three nights. The encampment is one of the biggest social and educational features in agricultural club work. The vacation, the change and the inspiration which a

week away from home under good environment and in close touch with able instructors gives the average country boy and girl a new opportunity and a new viewpoint.

The club members have been aided in their work by making exhibits at fairs and taking part in demonstrations and contests sponsored by the fairs. The agricultural club contests held in connection with the State Fair last year were one of the popular features of this event. The leading club members were selected by the county agent under an elimination plan, after which district contests were held and the winning teams sent to the State Fair to compete for State prizes. The boys were entertained by the college during their stay in Raleigh.

It is not all work at the club encampments. This is a view of an encampment held in Vance County last summer.

Negro Boys' Club Work.—Among the Negroes, the records show that 178 well organized clubs carried on extension work under the direction of the negro local agents. Of these, 124 were for boys and had a membership of 2,518 boys. Of that number, 1,557 completed the work. The records show that there are 61 negro boys who have been in this junior club work for four or more years. The negro agents trained 11 judging or demonstration teams and were the cause of 215 former club members entering college during the year. Five club encampments were held for negro boys and girls, at which there were 143 boys and 190 girls.

In crop clubs, 335 boys were enrolled in corn club work and 189 completed their work and made reports; 642 grew wheat as a project, with 529 completing. There were also a few negro boys enrolled in soybean clubs and in peanuts and velvet beans; 31 members grew Irish potatoes; 24, sweet potatoes; 158 grew cotton, and 20 grew tobacco.

With gardens, 327 boys were enrolled by the local agents. In livestock, 72 boys were in dairy cattle work and 63 completed it; 590 were in pig club work, with 457 completing; and 427 were in poultry club work, with 174 completing.

Most of the records secured from the negro club members are necessarily obtained by correspondence due to the fact that the State is not so well covered by local agents as with county agents.

DAIRY EXTENSION

In dairy extension, work is being carried on with ten different projects. The first of these projects is in herd record work in an effort to secure individual production and feed cost records on eight herds of milk cows located in various sections of the State, scattered from New Bern to Canton. These herds are used as demonstrations and the data obtained are used in dairy schools and news items for the press. Two cow testing associations were organized, with all-time testers employed. One of these, the Piedmont Cow Testing Association, covers the territory from Pinehurst to Winston-Salem and serves thirteen members, six of which do semi-official testing. Records are being kept on 275 cows. The Gaston-Mecklenburg Association is located in Gaston and Mecklenburg counties, with twenty members, four of which do semi-official testing.

The second project is in the placing of pure-bred bulls. This work is done largely with individual members and communities rather than with associations because of the difficulty in getting members in an association to work together harmoniously. One of the outstanding pieces of work last year was done in Buncombe County in a campaign which lasted for five days, during which 40 meetings were held in various parts of the county. The work did much to produce a strong sentiment for keeping pure-bred sires in the county. Ten bulls were sold during the campaign and five were bought later because of the interest aroused.

With cheese factories, results have not been as outstanding as in previous years because of depression of business conditions in the mountains. The supply of milk is as yet inadequate for much progress to be made in establishing new factories because the farmers are not yet interested in dairying. Cheese factory work is divided under two specialists, five factories being under the supervision of one specialist and six under another. These specialists have charge of the manufacturing problems and try to standardize production.

Under the supervision of W. A. Graham, one new factory, located at Democrat, began operation during the past year. Another new building is being erected by the Haywood cheese factory at a cost of $1,100. Mr. Graham reports that the five factories under his supervision received 715,000 pounds of milk and manufactured 73,000 pounds of cheese. He helped to build two new factories, organize two milk routes, and brought 36 cows into the community. He also held a total of 23 meetings at which there was an attendance of 1,521 people.

H. L. Wilson has charge of six cheese factories in Watauga County, assisting in organization, management, manufacturing and marketing.

Two factories which had been closed for the past four years opened up last year. The cheese specialists have been able to organize a North Carolina Cheese-Makers' Association, by which they are attempting to improve the quality of the produce being manufactured.

One of the recent developments in this section is the making of Swiss cheese, which has been done for two years in the Cove Creek cooperative factory. Last year 1,642 pounds of Swiss cheese was made at a manufacturing cost of 2.9 cents per pound. This cheese generally sells for 32 cents per pound.

Mr. Wilson reports that the operation of small factories in the mountains of North Carolina should be discouraged until it is better known that more cows are needed to operate such factories on a paying basis.

In creamery manufacturing, the progress made by creameries during 1924 was very satisfactory. In two cases, the dairy extension specialists discouraged the organization of creameries because there was not sufficient cream on hand. In one of these counties (Macon) the farmers are now shipping about 3,000 pounds of butter fat per month, and it is felt that a creamery may be established here after about another year of production work. There are now 28 creameries in the State, producing 1,812,919 pounds of butter. In 1917 the State was producing only 988,774 pounds. One of the members of the dairy extension staff has spent considerable time with the various creameries in helping them to manufacture butter uniformly, efficiently and economically that will meet the State and Federal standards. Last year he analyzed some thirty samples of butter for composition analysis. Practically every creamery in the State has been visited during the past year and suggestions made as to overcoming manufacturing difficulties and producing a better article.

The dairy manufacturing specialist is also doing some work with raw milk distributors in helping them to build milk houses, equipped with mechanical refrigeration and modern coolers.

The creameries of the State aided the dairy extension office to put on a life-sized butter cow as an exhibit at the State Fair last fall. This shows a close relationship between the creameries and the office.

Eleven dairy schools with an attendance of 982 people were held by the dairy extension office last year. The members of this division also attended all the large dairy meetings, and especially meetings about over the State. A total of 45 meetings with an attendance of 11,034 people were visited. The office continues to assist in the placing of pure-bred dairy cattle and several carloads have come in as a result of this work.

In the mountains, F. R. Farnham has assisted in placing a large number of pure-bred sires and has done much to encourage farmers to grow feedstuffs at home. Mr. Farnham held a total of 63 meetings last year, at which 6,011 people were present. He also purchased a total of 63 head of dairy cattle for farmers in the mountain section. Thirty-four farmers agreed to build silos as a result of his work and five have already been constructed.

In Eastern Carolina the dairy extension work has been under the general supervision of A. C. Kimrey, who held 73 meetings last year, with an at-

tendance of 7,197. He helped to place ten pure-bred bulls and 12 cows; he also assisted in one milk campaign and organized a bull association. During the year Mr. Kimrey visited a total of 377 farms in the eastern part of the State and helped some of these farmers to build new barns and milk houses. Mr. Kimrey has also assisted Mr. J. A. Arey, in charge of the office, in handling the administrative work of the office during the past year.

SWINE EXTENSION

One of the most successful phases of swine extension work in North Carolina continues to be the hog-feeding demonstrations. These feeding demonstrations were pushed as a major project during the past year. Ninety-five

Demonstrations in feeding swine is one of the successful projects now being fostered by Extension workers. Careful records are kept on each demonstration.

feeding demonstrations in 21 counties were begun with 16 agents and four instructors of vocational schools by the office of Swine Extension in 1924. In these demonstrations, 1,282 hogs were used, with their initial weight being 75,045 pounds.

In placing these demonstrations a special effort is made to begin with hogs of an age and weight suitable for them to arrive at a final weight of not less than 200 pounds at a time when the seasonal price trend is near its highest point. The Division of Markets then helps to dispose of the animals to the best advantage. These demonstrations are invariably followed by the cooperative carlot shipments of swine, and these shipments continue to grow and expand because of the known and proven profit in the practice. No attempt is made to demonstrate profit from commercial production on any farm where the average yield of corn is less than 25 bushels per acre. From results secured by this office, it is shown that by following the sug-

gestions for feeding as outlined the profit on corn has been more than doubled as compared with selling it at the current market price.

The swine extension office is also conducting a ton-litter contest in which three litters were entered last year.

A third project is a register of merit class for swine. This was begun during the past year with the swine divided into three classes, A, B and C. Certificates and gold medals are awarded to class A, silver medals to class B, and bronze medals to class C.

The division has also aided in the stimulation of consignment sales, cooperative carlot shipments, and in judging swine at the different fairs.

Of the 95 feeding demonstrations begun last year, 37 were completed, 11 were unfinished at the time of reporting, 30 lapsed, and for the others insufficient records were obtained from the farmers cooperating. It is felt that this work is doing more to stimulate economic production of hogs in North Carolina than any other one thing.

SHEEP EXTENSION

In sheep extension, work was done last year in improving the farm flocks, in emphasizing the necessity for pastures, especially for winter grazing of sheep, in the management and feeding of early lambs, control of parasites, preparation of wool for market, in grading and bagging of fleeces, and docking and castrating lambs.

The records of the work during the past year show that the sheep extension specialist paid 59 visits to county agents; he held 77 demonstrations, and addressed 31 meetings at which there were 596 people present. Assistance was rendered in buying 56 pure-bred registered sheep and 360 grade stock sheep. Eleven wool pools were held during the year and, in all, sheep work was conducted in 38 counties of the State. Excellent results were secured in getting farmers to so manage their flocks that early lambs, finished in time for the Easter market, were secured.

POULTRY EXTENSION

The slogan of the office of poultry extension is "Fifty to One Hundred Standard-Bred Hens of One Breed Only on Every Farm in North Carolina." To this end, the poultry extension specialists have directed their attention to community and county organizations. They have also tried to organize small poultry associations to help in the cooperative buying and selling of birds. They have continued to give instruction in proper feeding, in building better poultry equipment, to help in improved breeding practices from a production standpoint, to stimulate early hatching, to promote culling and to encourage better sanitary conditions around the poultry yards. The work is divided according to the seasons and is done with the close cooperation of the farm and home agents and the vocational teachers.

Poultry club work is one of the big features of poultry extension in this State, and the records show that club members last year won nearly $3,000, not only in club classes but in open classes at fairs in this and other States. Due to the efforts of poultry extension work and because of the ground-

work completed years ago, eighteen solid carloads of poultry were loaded last year. The office has also found markets for many growers who ship eggs, turkeys, capons and fryers to Northern markets. An effort is being made to supply all large hotels, hospitals and other institutions with eggs from local sources. A number of poultry clubs have been doing this for some years, getting fifty cents a dozen for their eggs throughout the year.

During the past year the two workers engaged in the office of poultry extension visited 738 farms, held 505 meetings, where there was an attendance of 22,269. They culled 454 flocks, held six judging contests, and made 50 educational exhibits. Members of the poultry clubs to the number of 785 showed 4,509 birds at the various fairs over the State.

Inexpensive but practical poultry houses are appearing over the entire State as a result of extension work in poultry.

FIELD CROP EXTENSION

Extension work with field crops during the past year consisted of seed improvement demonstrations, field and indoor meetings, the preparation of special articles, and attention to correspondence and the following up of work with communities where seed improvement had been started in the previous year.

Demonstrations with cotton varieties were conducted in eleven counties. These were successful in eight and failures in three on account of poor stands. Definite reports of these demonstrations were sent to growers in the various communities. The results continue to show the value of using the two standard varieties, Mexican and Cleveland Big Boll, chosen by this State, and prove beyond question the importance of using home-grown seed of these varieties.

Demonstrations in corn-growing were conducted in 30 communities of seven counties. This work consists largely of variety demonstrations to

standardize and secure the best varieties for each community, and then to encourage field selection of seed from these adopted varieties. Demonstrations with soybeans were conducted in 21 counties. The purpose of some of these were to establish the new varieties, such as Otootan and Laredo, which are becoming more popular than the Mammoth Yellow and are selling at a considerably higher price.

The extension agronomists have done much to direct attention to the low germinating power of cotton seed picked after the rains of last fall. Because of their efforts in this direction, hundreds of samples of seed were

Better corn yields are being secured in North Carolina as a result of variety demonstrations.

sent in to the State Seed Laboratory during the past winter. The extension agronomists have also aided materially in the exchange of pure-bred seeds among farmers in the State. Some part was taken in boll weevil campaigns held last spring.

SOIL IMPROVEMENT EXTENSION

Soil fertility work is rated as one of the slowest of all agricultural activities in yielding results. A worn-out field must often be terraced, well limed and fertilized and have one or two legume crops turned under before it can be made productive. This naturally takes several years. It is along these lines, however, that the extension agronomist has devoted much of his work during the past year. He has helped to conduct 85 fertilizer demonstrations in cooperation with county agents of 14 counties. These were carried on to show the best kind and amount of fertilizer to use for the different crops on

the different soils. One county agent, as a result of his demonstrations, now has 300 farms using the fertilizers recommended, and agents in eight other counties report that their farmers have bought cooperatively 2,491 tons of raw materials to mix according to formulas recommended. The saving resulting from this home mixing ran from $3 to $9.45 per ton.

The extension agronomist has also advocated the use of lime in the growing of legumes. These demonstrations in all parts of the State have been instrumental in increasing the acreage planted to clovers and other legumes. Agents in 16 counties report 9,619 tons of limestone used last year. Most of this was used in soil-improvement work.

Permanent pasture demonstrations in Eastern Carolina are attracting much attention, as shown by the above group of farmers inspecting this one.

The most notable achievement in some years, however, has been the introduction of lespedeza, credit for which belongs largely to County Agent T. J. W. Broom, of Union County. Last year 2,500 farmers in Union County grew lespedeza on 15,000 acres of land. In some cases where it has been plowed under the resulting yield has been greater than where heavy applications of nitrogen fertilizers have been made.

Considerable work has also been done in the planting of pastures. Some farmers say that the pastures planted have become the most valuable acreage on the farm. It is stated that between 500 and 1,000 new pastures were started by county agents last year.

The extension agronomist devotes much of his time to soil-improvement work, visiting the various farms with the county agents, planning definite demonstrations and visiting these demonstrations during the year to see that they are properly conducted. Last year he placed 17 such soil-improve-

ment demonstrations and 22 crop rotation demonstrations. One hundred and fifty-four visits were made to these demonstrations in 33 counties. One hundred and forty-two other visits were made for advising with farmers. A total of 70 meetings with an attendance of 2,055 people were held.

TOBACCO EXTENSION

Though a relatively new phase of extension work in North Carolina, work in helping tobacco farmers to produce a finer quality of leaf and better yields per acre has met with a hearty and favorable response. This work, under the direction of H. A. McGee, has been conducted from the Tobacco Branch Station, near Oxford, as headquarters, so that Mr. McGee would have the results of the various experiments constantly before him.

The records show that 358 method demonstrations were conducted with 25 county agents last year. Nearly 200 adult result demonstrations were placed and 156 were completed. These demonstrations involved 826 acres of tobacco. The increased yield secured amounted to 2,847 pounds as reported by 13 agents only. The agents report that 628 farmers treated their tobacco seed for control of leaf diseases last year and, in all, 1,328 farmers adopted better practices in growing tobacco as a result of extension work.

EXTENSION ENTOMOLOGY

Work in control of boll weevil occupied the largest amount of attention from the extension entomologist during the last year. During January and February meetings were planned and held in 22 counties with the idea of offering a complete program of cotton culture and poisoning to the people attending. Following this series, a number of additional meetings were held at other places where application was made.

In April the extension entomologist was located in Edgecombe County and established a field station where he could best reach the farmers of that section. It was felt that this section was due to have a full normal damage for the first time, making it important to secure such a location. Time was spent from April to July in holding field meetings and demonstrations and in giving instructions in the different methods of poisoning and dusting cotton to control the boll weevil. Most of July was spent in instructing the growers how to determine the percentage of weevil damage, how to avoid mistakes, and how to poison. The latter part of July and August was spent in supervising actual dusting. Some time was also given to potato and orchard spraying, red spider control, and other problems of economic importance. The extension entomologist, with the help of two assistants, also looked after boll weevil control demonstrations made on the Upper Coastal Plain Station, near Tarboro.

In all, a total of 58 meetings and 36 demonstrations, with an attendance of 8,572 people, were held. The entomologist held 309 consultations with county agents and received 559 calls at his office.

One demonstration showed that a net profit of $42.58 could be made in dusting to control the boll weevil after deducting the complete cost of treating the cotton. On another farm, where the infestation by boll weevil had reached 45 per cent before dusting was started, a net profit of $19.69 per acre was secured.

BEEKEEPING EXTENSION

One of the chief objects of the office of beekeeping extension is to help beekeepers in transferring their bees from old-fashioned gums and box hives to modern hives. This is done at the beginning of the spring honey flow, and last year 16 such demonstrations were given.

Another project of importance is spring management in preparation for the honey flow. This work is done to aid beekeepers in seeing that the

Old box hives and gums are being replaced by modern equipment as a result of Extension work with beekeepers.

weakened condition of their colonies in early spring is so overcome at the beginning of the honey flow that a profitable surplus may be produced.

A third project is proper management during the honey flow. This is the most active time in the life of the honey bee, and it also brings many perplexing problems. Demonstrations and lectures on this subject include those manipulations which help the bees to gather and store honey and prevent swarming or a division of the working force during the period. Swarm control is one of the outstanding features, and when properly done has a tendency to promote the gathering and storing instinct in the bees. During the past year 38 lectures and demonstrations, at which 543 people were present were given in this work. In every case from three to five times as much surplus honey was secured as where the colonies were not so treated.

A fourth problem of importance is the matter of helping beekeepers to rear strong queens. The queen is one of the cornerstones in the foundation of honey production, and this subject is discussed at all meetings held to encourage the proper management of bees.

A fifth project has to do with the treatment and control of bee diseases, especially American foulbrood and European foulbrood. These diseases have done considerable damage in a large number of counties. In one county a beekeeper having 500 colonies lost half of his bees before he realized the nature of the disease.

These modern hives belong to a beekeeper in Pasquotank County.

Work has also been done by the specialist in fall management and preparation of the colonies for winter and helping beekeepers to study the behavior of their bees and adopt the best practices.

During the year the specialist visited 84 county agents and held a total of 207 demonstrations and meetings, at which 2,476 people were present. He made visits to 237 beekeepers. Since this work was begun, eight years ago, approximately 70,000 colonies of bees have been transferred from box hives and gums to modern hives. Most of these have been re-queened with Italian queens, and probably 50,000 Italian queens have been introduced into the State. The production of honey has increased from about $1,500,000 to approximately $4,000,000.

Manufacturers of beekeeping supplies report that there has been a great increase in modern equipment sold in the State and say that there is a greatly increased interest and advancement in beekeeping in the last few

years. Some beekeepers have a total of over 600 colonies and one in particular sold over 20 tons of honey last year. This averaged from 25 cents to 30 cents per pound. Another farmer in Robeson County has 700 colonies of bees and is still increasing his apiary. He sells honey by the ton and is highly pleased with the returns received. The better beekeepers owning improved hives say that now they are averaging 75 or more pounds per colony.

HORTICULTURE

North Carolina is developing rapidly as a horticultural State. In 1919, the records show that 6,972 cars of fruits and vegetables were shipped from commercial growers. In 1924, 16,637 such cars were shipped. This increased interest in horticultural crops has resulted in larger demands on the division of horticulture for extension work. During 1924 the division had two men engaged in horticultural extension, one conducting general work in the eastern half of the State and the other doing similar work in the western half. In conducting this work, the division made a thorough survey to determine the most important problems and then to organize its extension work so that the maximum amount of service could be performed.

Attention has been devoted to seven major problems. These include the more thorough pruning and spraying of commercial orchards, the planting of home orchards, the establishment of home gardens, a better distribution of the sweet potato crop through the use of storage houses, the use of improved cultural practices with sweet and Irish potatoes, the organization of fruit and vegetable associations and more attention to the beautification of home grounds.

A statistical summary of the workers in conducting the horticultural program for the last year shows 118 visits to agents, 185 visits to demonstrations, 282 visits to others, and 122 meetings conducted, with a total attendance of 2,513 people. Both the county and home agents engaged in considerable horticultural activity. The home agents were especially active in promoting the beautification of home grounds and the establishment of home gardens.

The county agents also did work with home gardens and home beautification, but gave most of their time to the promotion of orchards, truck crops and sweet and Irish potatoes. The demonstrations conducted by the extension horticulturists in connection with the county agents showed that returns of from 1,500 to 3,000 per cent more fruit were secured where good attention and a definite system of orchard management was followed. The record shows that in one orchard where a demonstration was conducted the net cash income amounted to $658.10 over that given by the check plots when proper spraying, pruning, fertilization and cultivation was followed.

A treated orchard in Henderson County yielded 500 bushels more apples than the untreated part. In Transylvania, a net profit of $96.55 was secured for thirty sprayed trees over and above that received from unsprayed trees. In Mitchell County a bearing orchard properly treated increased its production some 300 per cent over the trees not treated. In this case, 80 per cent of the fruit from untreated trees was wormy and scabby, while

not more than 8 per cent of that from treated trees was so affected. A number of other similar examples of increased returns from treated orchards could be given.

With Irish potatoes, 14 demonstrations conducted to test the comparative value of seed from western North Carolina compared to that from Maine, showed that the mountain-grown seed averaged 72.7 barrels per acre, while the Maine seed yielded only 66.2 barrels per acre.

One of the interesting club projects of the past year was work with Irish potatoes. In Buncombe County a club boy produced 360 bushels of potatoes to the acre at a cost of $97. Another boy produced 344 bushels at a cost of $87. Six club boys are now growing certified seed in Buncombe County. Demonstrations conducted comparing certified and uncertified seed, showed that the certified seed gave a yield of 40 bushels per acre over the uncertified.

Some excellent results have been secured in the storing of sweet potatoes and in one of the new houses the rot and shrinkage last year was less than 5 per cent.

In growing cabbage for the production of kraut, an association of 90 growers in Watauga County was the pioneer organization. Last year these growers made 350 tons of cabbage into kraut, which was sold through the association.

In home beautification many of the home agents are doing splendid work with this project. Not only have they helped in beautifying the homes of rural women, but they have also done much to stimulate interest in the beautification of school grounds. For instance, six communities in Edgecombe County last year cooperated to improve their school grounds.

The home garden has been one of the popular projects of the division of horticulture and has been conducted with the close cooperation of the division of home demonstration, as is shown in the report from this division.

Extension Horticulturist, Western Carolina.—Extension work in western Carolina is conducted by Mr. H. R. Niswonger with headquarters at Asheville. This work is done largely with fruits and vegetables, and especially with the apple industry in so far as fruits are concerned. An effort has been made to assist the commercial growers to produce a volume of high conditioned fruit, to increase production of the fruit, to overcome the practice of heavy pruning and to see that in the future only the best varieties of apple trees are planted.

With vegetables, the extension program has been conducted largely around the inspection of Irish potatoes in the certified seed industry, to determine whether head lettuce can be produced in the mountains at a time when the demand is good, to determine the right grade of fertilizer to produce the best yield of Irish Cobbler potatoes, to secure a volume and standardization of Irish potatoes and to produce certified seed for eastern Carolina and the Southern States.

In this work in the mountains definite plans of work have been engaged in and excellent results have been secured. Last year the extension horticulturist made 60 visits to demonstrations, and 179 visits to individual growers of fruits and vegetables; a total of 83 meetings were held, at which

1,204 fruit growers were present. The horticultural specialist also helped to organize the "Western North Carolina Fruit Growers' Association."

PLANT PATHOLOGY

Extension work in plant diseases includes demonstrations with orchards, the control of tobacco diseases, the use of wilt-resistant varieties of cotton, the control of Irish potato diseases and a survey of plant diseases in North Carolina. During the past year the extension pathologist made a number of orchard demonstrations in cooperation with the extension horticulturists and county agents in Gaston, Mecklenburg, Iredell and Alamance counties.

Hundreds of farmers in North Carolina treated their tobacco seed to control leaf-spot diseases during 1924. This shows a group of tobacco growers in Alamance County.

Orchard meetings were held in these counties during the winter months and the demonstration of fruit disease control was begun and continued throughout the spring and summer months. In this work a part of the trees were sprayed and a part left unsprayed as checks.

As an example, in the apple orchard of W. L. Knowles, $128.90 net profit was made by carrying out the practices recommended in the demonstrations. In the apple orchard of J. F. Haus a net profit of $398.97 was made as a result of carrying out the plans advocated in the demonstrations.

In addition to demonstration work, a spray schedule service was maintained during the year in the Piedmont and Central portions of the State for the benefit of home orchardists and the larger fruit growers. Several hundred spray notices were sent out just prior to the time of application for each spray and reports received indicate that this service was much appreciated.

In tobacco disease control, a special effort was made during 1924 to minimize the loss from angular leafspot and wildfire. Demonstrations were given in four counties of the tobacco sections and were attended by more than 300 growers. The majority of these growers brought their seed with them, with the result that seed for about 400 farms were treated.

In cotton wilt control, some plantings of the Dixie Triumph wilt-resistant cotton were made. In Richmond County 150 acres of this strain was planted last year, resulting from a small demonstration the previous year. Seed of wilt-resistant cotton were also secured for plantings on 30 acres of demonstrations in cotton sections.

In the control of Irish potato diseases, most of this work has been done in the mountains. In Watauga County, more than 12,000 bushels were grown for seed in 1924. The seed for this crop was treated by the growers with bichloride of mercury before planting and the crop itself dusted or sprayed during the season.

The extension pathologist is making a survey of plant diseases in North Carolina. Last year the cotton blight disease was reported in 32 counties and information on hand enabled the growers to be informed about the proper methods of control. The extension pathologist has also made examinations of about 40 plant disease specimens sent in during the year. He has helped farmers to purchase bichloride of mercury to disinfect their seed potatoes. Exhibits have been made at the State Fair and other fairs to show the value of proper plant disease control.

FARM ENGINEERING

Farm engineering has been conducted around three definite projects as follows: (1) To help install water supply, lights and sewage disposal plants, and to aid in establishing other home conveniences. (2) To help in the construction of farm buildings. (3) To give information on farm machinery and motors.

In carrying out the activities of this division this year, trips have been made to those sections where a number of people are interested in one or more projects. After going over the location, plans are suggested and bills of materials, along with estimates, are furnished. Standard plans for building work are furnished wherever possible, but in many cases it has been found necessary to get out additional plans other than those on hand. One of the new sets of plans made this year was for a dairy barn at the North Carolina College for Women. This barn was built to accommodate 100 cows, including all feed storage, lounging space and other conveniences desired by a good dairyman. The complete cost of this building was $25,000.

During the year the farm engineer visited 37 county agents who had him to give help in 78 actual demonstrations; 82 other farmers were visited who were interested in some phase of farm engineering work. In 15 cases an actual demonstration was put on where it could be handled in one day. This included the establishment of five water supply plants from hydro-electric rams, 5 water supply outfits from engines, 2 self-feeders for hogs, and 3 breeding crates for hogs.

It is the practice of the farm engineer to get some of the buildings, such as hog houses, self-feeders, poultry houses, brooder houses, water supply installations or barns started in a section so that interested people may be referred to these plans and thus construct the building desired.

In taking care of building work last year the farm engineer prepared and mailed out over 1,500 plans which have gone into 87 counties. During the year, also, 42 home water supply installations have been made, 58 building plans prepared, 82 water power sites located, 10 machinery problems investigated, and 8 terracing or drainage plans prepared. The terracing and drainage work is not included in the regular work of the division, and is taken care of only when convenient to do so on other trips. However, 19,000 feet of terraces were laid off by the engineer during the last year.

A total of 8 meetings were attended where there was an attendance of 625. Forty-one new designs were prepared during the year from which plans have been made. This is a total of 153 designs or plans on hand at the present time. The engineer has held 553 consultations in his office. Last year, with the help of an assistant, 43 bills of materials for silos were mailed out to 26 counties and 16 actual demonstrations in the construction of silos were put on. The engineer also collected a large amount of data about hydraulic ram installations made during the past four years.

FINANCIAL REPORT

The following tables show sources of all funds used in extension work, and a summary statement of expenditures by projects and by classification:

SUMMARY STATEMENT OF EXPENDITURES, BY PROJECTS, SHOWING CLASSIFICATIONS OF EXPENDITURES FROM ALL FUNDS USED FOR EXTENSION WORK

	Salaries	Labor	Supplies & Material	Communication Service	Travel Expense	Freight & Express
Administration	$ 19,912.46	$ 99.80	$ 1,228.09	$ 777.73	$ 781.98	$ 188.19
Publications	4,325.28	25.00	205.37	24.16		55.15
County Agents' Work	294,434.87	201.90	2,254.74	752.70	46,383.95	31.64
Home Demonstration	112,162.81	49.20	675.70	432.98	6,385.84	13.98
Agronomy	14,924.92	37.80	629.64	237.00	2,684.00	32.60
Animal Industry	24,863.26	25.75	522.53	335.94	8,591.21	3.08
Beekeeping	2,500.00				1,018.62	
Entomology	3,674.96	25.00	2.50	16.58	1,530.92	
Horticulture	9,833.33		37.23	20.60	2,616.97	.60
Farm Engineering	4,272.46	150.00	224.57	50.00	1,043.60	4.13
Markets	3,450.00				516.91	
Plant Diseases	2,760.00	35.53	69.46	46.00	727.69	1.94
Farm Forestry	3,000.00					
Totals	$500,114.35	$ 649.98	$ 5,849.83	$ 2,693.69	$ 72,281.69	$ 331.31

SUMMARY OF EXPENDITURES, BY PROJECTS, SHOWING SOURCE OF FUNDS USED FOR EXTENSION WORK

	Total	Smith-Lever		College & State	County	State Dept. of Agriculture	U. S. D. A.
		Federal	State				
Administration	$ 23,581.78	$ 17,571.33	$	$ 290.49	$	$ 5,119.96	$ 600.00
Publications	12,654.28	4,999.74	6,667.74	436.52		550.28	
County Agents' Work	344,732.84	194,876.67	37,822.19	8,513.33	84,335.90		19,184.75
Home Demonstration	119,754.99		106,624.83	109.52		180.00	12,840.64
Horticulture	12,575.32	9,908.32	251.00	136.00		2,280.00	
Agronomy	18,836.23		15,245.26	91.05		3,499.92	
Animal Industry	34,441.35		31,757.48	683.95		1,999.92	
Beekeeping	3,518.62		2,078.62				1,440.00
Entomology	5,249.96		3,967.80	282.20		999.96	
Farm Engineering	5,795.95		5,425.99			369.96	
Markets and Rural Org.	3,966.91		3,966.91				
Plant Diseases	3,647.90		3,548.24	99.66			
Farm Forestry	3,000.00					3,000.00	
Total Expenditures	$591,756.13	$227,356.06	$217,356.06	$ 10,642.72	$ 84,335.90	$ 18,000.00	$ 34,065.39

SUMMARY STATEMENT OF EXPENDITURES, BY PROJECTS, SHOWING CLASSIFICATION OF EXPENDITURES FROM ALL FUNDS USED FOR EXTENSION WORK

	Printing binding and cuts for publications	Equipment	Miscellaneous	Total
Administration	$	$ 593.53	$	$ 23,581.78
Publications	8,019.32			12,654.28
County Agents' Work		323.04	350.00	344,732.84
Home Demonstration		28.77	5.71	119,754.99
Agronomy		290.27		18,836.23
Animal Industry		99.58		34,441.35
Beekeeping				3,518.62
Entomology				5,249.96
Horticulture		66.59		12,575.32
Farm Engineering		51.19		5,795.95
Markets				3,966.91
Plant Diseases		7.28		3,647.90
Farm Forestry				3,000.00
Totals	$ 8,019.32	$ 1,460.25	$ 355.71	$ 591,756.13